

**High-Contrast Imaging in the L-band with MMT/Clio and the 6pc Survey:
Exploring the Closest Exoplanets through Angular Differential Imaging**

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I will describe the novel Clio high-contrast camera at the MMT and report on the first results from three ongoing L-band exoplanet surveys for giant planets surrounding: 1) white dwarfs (PI: Sivanandam); 2) young Solar-type stars (PI: Heinze); and 3) all stars within 6 pc (PI: Apai), which I will discuss in more depth. Clio is uniquely sensitive to older planets enabling us to image extrasolar giant planets between 2 and 30 AU from their host stars in the solar neighborhood. The 6pc Survey will provide a census of massive giant planets and planetary-mass brown dwarfs orbiting all stars within 6 pc from the Sun. Identified exoplanets will serve as prime targets for follow-up observations, while the observed mass distribution of companions as a function of orbital radius, will provide powerful constraints on theories of binary star and planet formation.